

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A display control device including an image data writing means, a graphics memory connected to the writing means, a data transfer means responsive to a command from the writing means for reading data from the graphics memory, and transferring data to a display means, and a write region detection means responsive to addresses for arbitrary image data accessed by the image data writing means for detecting a region including all the addresses being accessed without generating and transferring a flag associated with said detected region, wherein when the image data writing means issues a transfer command, said transfer means transfers to the display means only such data that is in the region of said arbitrary image data detected by said write region detecting means.

2. (Original) The display control device as set forth in Claim 1, wherein said region detecting means detects, as said write region, the region from the minimum vertical direction addresses and the maximum vertical direction address among the addresses accessed by said image writing means.

3. (Original) The display control means as set forth in Claim 2, wherein said region detecting means detects, as said write region, the region from the minimum vertical direction address to the maximum vertical direction address among the addresses accessed

by said image writing means, and from the minimum horizontal direction address to the maximum horizontal direction address among the addresses accessed by said image writing means.

4. (Original) The display control device as set forth in claim 2, wherein said region detecting means detects, as said write region, a rectangular region from the minimum vertical direction address to the maximum vertical direction address among the addresses accessed by said image writing means, and from a minimum horizontal direction address to the maximum horizontal address.

5. (Previously Presented) The display control device as set forth in claim 1, wherein:

    said graphics memory stores data from the image data writing means at an address designated by the image data writing means,

    said image data writing means writes data of only such part that needs to be updated, in said graphics memory, and

    said write region detection means is responsive to signals, including said transfer command, representing the addresses accessed by the image data writing means for detecting the region including all the addresses.

6. (Currently Amended) A machine-readable medium having stored thereon a plurality of executable instructions, the plurality of instructions comprising instructions to:

write arbitrary image data to addresses within a graphics memory using an image data writing means;

read and transfer said arbitrary image data, using a transfer means and a write region detection means, from the graphics memory to a display means in response to a transfer command issued from the image data writing means;

wherein said write region detection means, responsive to said addresses accessed by the image data writing means, to detect a region including all said addresses for the arbitrary image data being accessed;

wherein said transfer means, responsive to said transfer command issued from the image data writing means, to transfer to said display means only such data in the region of arbitrary image data detected by said write region detection means;

store data, using said graphic memory, from the image data writing means at an address designated by the image data writing means,

write data, using said image data writing means, of only such part that needs to be updated in said graphics memory; and

wherein said write region detection means is responsive to signals, including said transfer command, representing the addresses of arbitrary image data accessed by the image data writing means for detecting the region including all the addresses without generating and transferring a flag associated with said detected region.

7. (Currently Amended) A machine-readable medium having stored thereon a plurality of executable instructions, the plurality of instructions comprising instructions to:

access arbitrary image data using addresses within a memory for transfer to a display device;

determine an image data region, being less than a full display screen of image data, including said addresses of arbitrary image data being accessed without generating and transferring a flag associated with said determined region; and

transfer said arbitrary image data within said image data region to said display device.

8. (Previously Presented) The medium of claim 7, wherein said image data region includes a region from a minimum vertical direction address to a maximum vertical direction address among said addresses being accessed.

9. (Previously Presented) The medium of claim 8, wherein said image data region includes a region from a minimum horizontal direction address to a maximum horizontal direction address among said addresses being accessed.

10. (Previously Presented) The medium of claim 8, wherein said image data region includes a substantially rectangular region from minimum vertical and horizontal direction addresses to maximum

vertical and horizontal direction addresses among said addresses being accessed.

11. (Previously Presented) The display control device as set forth in claim 1, wherein said write region detection means detects minimum and maximum addresses among addresses within the graphics memory that have been accessed by said image data writing means, for detecting said region.